

WHAT IS CLAIMED IS:

1. A camera blade driving device for use in a camera comprising:

a base plate having an exposure aperture;

5 a blade supported pivotably on a supporting shaft on the base plate and capable of blocking part or all of light passing through the aperture while facing the aperture; and

an electromagnetic actuator for driving the blade, the electromagnetic actuator having:

10 a frame member joined to the base plate;

a rotor one end of which is supported by the frame member and an opposite end of which is supported by the base plate, the rotor having a driving pin by which a driving force is exerted onto the blade, the rotor rotating within

15 a predetermined angular range;

a magnetizing coil wound onto the frame member and the base plate; and

a yoke provided outside the coil substantially coaxially with the rotor.

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2. The camera blade driving device as set forth in Claim 1, wherein

one of the frame member and the base plate has a fitting convex portion used to connect the frame member and the base plate together by fitting, and

25 the other one of the frame member and the base plate has a fitting concave portion to accept the fitting convex

portion.

3. The camera blade driving device as set forth in
Claim 1, wherein

5 the base plate has a projection protruding outward
in a radial direction with respect to the aperture,

the frame member is connected to the projection so
as to rotatably support the rotor in cooperation with the
projection, and

10 the coil is wound so as to fasten the frame member
onto the projection.

4. The camera blade driving device as set forth in
Claim 1, wherein

15 the rotor is disposed so that a center of an angular
range where the rotor rotates is situated substantially on
a straight line passing through a center of the aperture
and extending in a radial direction, and

20 the coil is wound in a direction substantially
perpendicular to the straight line.

5. The camera blade driving device as set forth in
Claim 1, wherein

25 the blade is a single shutter blade or a single
diaphragm blade used to open and close the aperture, and
the driving pin is connected directly to the single
shutter blade or the single diaphragm blade.

6. The camera blade driving device as set forth in
Claim 1, wherein

the blade is a pair of shutter blades or a pair of
5 diaphragm blades used to open and close the aperture, and
the driving pin is connected to the pair of shutter
blades or the pair of diaphragm blades through a connecting
arm swingably supported by the base plate.

10 7. A camera blade driving device for use in a camera
comprising:

a base plate having an exposure aperture;
a blade supported pivotably on a supporting shaft on
the base plate and capable of blocking part or all of light
15 passing through the aperture while facing the aperture; and
an electromagnetic actuator for driving the blade,
the electromagnetic actuator having:

a frame member joined to the base plate;
a rotor one end of which is supported by the frame
20 member and an opposite end of which is supported by the base
plate, the rotor having a driving pin by which a driving
force is exerted onto the blade, the rotor rotating within
a predetermined angular range; and
a magnetizing coil wound onto the frame member and
25 the base plate.